



NANOTECHNOLOGY: THE FUTURE OF REGULATORY POLICY

Opening Remarks

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Nanotechnology. The very word has become a symbol for what science can accomplish. From nano-pants to new cancer treatments. From baseball bats to sunscreen. The innovations may be small but some of these scientific advances may have a large impact on our quality of life.

So where are we in the technology cycle? We now have in commerce a number of nanoscale materials in a broad array of products, but in terms of what nanotechnology is projected to become we have only scratched the surface.

We are learning more every day. Little by little we gain a better understanding of the characteristics of nanomaterials. Little by little we are gaining a better understanding of the potential risks associated with nanoscale materials. I believe that, years from now, when we are able to look back at today, we will see that the safety of nanomaterials runs the gamut from those that are benign to those that will need to be used with caution. We may not have all the answers but hopefully we will have asked the right questions such as: which substances exhibit properties that impact safety; what are those properties; what causes those properties; and what precautions are needed? More importantly, can these nanomaterials be modified to prevent negative effects? These questions need to be addressed but it may be some time before we have all the answers.

So where are we now? What are the expectations with respect to our knowledge base on nanomaterials? There is no simple answer and perhaps it's time to begin managing our expectations. We will certainly continue to look forward to technological advances that we could have only dreamed about a few short years ago. Nanotechnology has put science in the forefront by creating opportunities for alternative energy, drug delivery methods, improved medical diagnostics and yes, better baseball bats and tennis balls. Science can once again bask in the glow of achievements springing forth from the minds of very talented people from across the globe.

As usual, science is one step ahead of the need to regulate any new technology. Initially, we discover what science can achieve and then we move along to using that science to benefit mankind. Over time we may see warning signs about the products of any new technology and that poses a different challenge -- the challenge of making sure that benefits are not overcome by adverse impacts.

Once we begin to accept these challenges we can move forward and use science to provide solutions. We all have a part to play in overcoming these challenges. Industry uses nanotechnology to provide benefits in the way of improved products for consumers. Academics and scientific researchers provide additional expertise to further develop nanotechnology and to examine the potential impacts of nanomaterials. Non-governmental organizations are always looking over the shoulders of industry and government and their importance as a social conscience should not be discounted.

Today we will address the regulatory role of government in the development of nanotechnology. The funding provided by the federal government through the NNI has been invaluable in assisting the growth and development of new applications. But today much of our focus will be on the side of government with a responsibility to regulate nanotechnology in an effort to protect the safety of the public.

Policy makers have begun to address the impacts on safety and the applicability of the existing regulatory frameworks crafted to ensure the safety of new products entering the marketplace.

Earlier I spoke of challenges. These challenges are now in front of us. We are all stakeholders in the success of nanotechnology and we all must do our part to do whatever we can to make sure that nanotechnology continues to provide benefits while ensuring the safety of researchers, workers and consumers of today and tomorrow.

We have an excellent program today that reflects the broad range of issues that we, as stakeholders, must seriously consider. Today you will hear from government regulatory officials that will tell us about what they are doing to better understand nanomaterials and what activities are underway to provide a basis for the future regulation of nanotechnology. As you might suspect, this undertaking is not simple and it will take time. The information we are sharing today should guide our actions as we go forward as responsible stewards of nanotechnology.

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